Inspection Date: June 25, 2014

Start: 8:39 AM

Weather: Cloudy → Rain; ~69 degrees

Site: Stone Energy – Conley Impoundment Site

Location: Wetzel County, WV

39.607, -80.791

On June 25, 2014, representatives from the U.S. Environmental Protection Agency (EPA) conducted a Clean Water Act Section 404 inspection at the Conley Impoundment along with representatives from the USACE – Huntington District and West Virginia Department of Environmental Protection ("WVDEP") Oil and Gas (OOG) and Environmental Enforcement (EE) offices. Representatives from Stone Energy Corporation (Stone Energy) were also present. See sign-in sheet for complete list of attendees.

Background: Site Location and Hydrologic Connectivity

The Conley Impoundment Site (Site) consists of a lined, freshwater impoundment and an associated access road, and is operated by Stone Energy. The Site is located approximately 2,500 feet west of the intersection of West Virginia Highway 7 and Turkey Run Road/County Road 38, New Martinsville, WV 26155. The Site is located adjacent to an unnamed tributary to Little Fishing Creek. From the Site, the unnamed tributary flows approximately 400 feet to Little Fishing Creek, then 4.33 miles to Fishing Creek, then 5.76 miles to the Ohio River. According to the Huntington District of the U.S. Army Corps of Engineers (USACE), Fishing Creek is considered navigable 7.4 miles above its mouth to the Ohio River.

Background: Site History

The property that the Site was constructed on is owned by Mr. Ronald Conley. Construction of the impoundment by Stone Energy occurred in late 2010 or early 2011. According to Stone Energy, The impoundment is connected to the Tuttle Impoundment (also inspected on June 25, 2014) via underground piping.

<u>Soils</u>

According to Soil Survey Geographic Database (SSURGO) mapping, the majority of the Site is underlain by Otwell silt loam, 3 to 8 percent slopes (OtB). The Otwell component, which makes up 75 percent of the map unit, is found on stream terraces on alluvial plain remnants. The soil does not meet hydric criteria. The northern portion of the Site is underlain by the Gilpin-Peabody complex, 35 to 70 percent slopes (GpF). This soil is made up of Gilpin (50%) and Peabody (30%) components, which are found on hillslopes. Parent material consists of residuum weathered from shale and siltstone. Neither soil meets hydric criteria. The southwestern corner of the Site is underlain by Vandalia silty clay loam, 25 to 35 percent slopes (VaE). The Vandalia component, which makes up 70 percent of the map unit, is found on

hillslopes. Parent material consists of clayey colluvium derived from sedimentary rock. VaE soil does not meet hydric criteria.

<u>Wetlands</u>

No wetlands are mapped by the National Wetland Inventory (NWI) in the vicinity of the Site. Hydrophytic vegetation was observed at the Site adjacent to a pre-existing pond at the top of the hillslope.

<u>Streams</u>

Little Fishing Creek

At the time of the inspection, a bridge was actively being constructed at the entrance of the Site. The bridge was to replace a low water crossing of Little Fishing Creek, which had been removed by Stone following a citizen complaint. According to Stone representatives, the bridge had been installed the day before at 4PM and had not been secured.

Tributary 1

Tributary 1 is a high-gradient, unmapped, unnamed tributary to Little Fishing Creek. It is located adjacent to the freshwater impoundment on the western portion of the Site and flowed in a northwesterly direction down the hillslope and across an active pasture before being directly discharged into Little Fishing Creek.

A small, freshwater pond, which had been constructed prior to Stone Energy's arrival at the Site, is located upslope of the disturbed stream. There was no visible outlet from the pond, only a rock overflow channel which was dry during the time of the inspection. Hydrophytic vegetation was observed at the pond fringes.

The area around the upper extent of Tributary 1 was previously forested but had been cleared. The upper extent of Tributary 1 had been rip-rapped with boulders or filled (~350 lf) and a water line was observed in the channel of the stream. Downstream of the disturbance, the stream had a defined bed and bank and substrate consisted of boulder slabs, boulder, cobble, and gravel. A flowing seep was observed near the edge of disturbance from tree-clearing. The upper channel was approximately three feet wide and was flowing at the time of the inspection.

Based on an Ohio Primary Headwater Habitat (Ohio Method) score of 53, presence of flow, substrate type, and macroinvertebrates identified from the assessed reach, Tributary 1 (SE-CONL-UNT1) was determined to be perennial (see OMA report).

Audrey Richter from the USACE – Huntington District walked the channel down to its discharge point to Little Fishing Creek. The lower channel had been re-routed to flow southwest along

the field/pasture by the landowner, Mr. Ronald Conley. Stone Energy's water line was observed to be discharging water into the pasture. Mr. Conley stated that he relocated the stream because after construction of the impoundment, the stream was making the horse pasture too wet. Mr. Conley stated that Stone had been using the impoundment for other wells in the vicinity.

Tributary 2

Tributary 2 is a SAMB-mapped, unnamed tributary to Little Fishing Creek. It flows in a northerly and then northwesterly direction down the hillslope and across an active pasture to Little Fishing Creek. Tributary 2 was flowing at the time of the inspection.

Large logs had been placed in the upper extent of the stream channel, potentially impacting ~50 If of stream channel. The stream had a defined bed and bank with vegetation absent from the channel bed. Further downstream, gravel substrate was observed in the channel.

Tributary 2 was disturbed and heavily impacted by sediment. Sediment from runoff was observed flowing into Tributary 2 from the rain event and discharging to Little Fishing Creek. Where the stream crossed the pasture, there was little riparian vegetation and stream banks were heavily disturbed due to landowner/livestock modification.

During the inspection, Stone Energy workers were observed shoveling accumulated sediment from one side of a filter sock to the other, directly upslope of Tributary 2. Jackie Thornton from WVDEP OOG ordered them to stop.

The OH Method score for Tributary 2 (SE-CONL-UNT2) was 20, indicating ephemeral flow; however, channel characteristics and macroinvertebrates identified from this site indicate more permanent flow. Tributary 2 is providing habitat for aquatic organisms, and is performing other functions including storage and transport of organic matter, storage and transport of sediment, and nutrient cycling (See OMA memo).

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